

WHAT IS CLAIMED IS:

1 1. For use in a mobile telecommunications network comprising
2 a mobile switching center, a plurality of subscribers, and a
3 processing element unit, wherein said mobile switching center is
4 capable of communicating with said plurality of subscribers and
5 with said processing element unit, an apparatus for providing a
6 distributed processing element unit capable of accessing each
7 processing element within said processing element unit, said
8 apparatus comprising:
9
10 a processing element unit controller within said mobile
11 switching center, said processing element unit controller capable
12 of embedding information within a temporary identification number
13 of a subscriber, wherein said information locates a processing
14 element within said processing element unit.

1 2. The apparatus as set forth in Claim 1 wherein said
2 temporary identification number is one of: a Temporary Mobile
3 Station Identification number, and a packet based Temporary Mobile
4 Station Identification number.

1 3. The apparatus as set forth in Claim 1 wherein said
2 processing element unit controller is capable of embedding
3 information within said temporary identification number of said
4 subscriber to locate said processing element within said processing
5 element unit by adding an address offset pointer to said temporary
6 identification number.

1 4. The apparatus as set forth in Claim 3 wherein said
2 temporary identification number is one of: a Temporary Mobile
3 Station Identification number, and a packet based Temporary Mobile
4 Station Identification number.

1 5. The apparatus as set forth in Claim 1 wherein said
2 processing element unit controller comprises:

3 a controller within said mobile switching center; and
4 computer software instructions operable by said controller to
5 execute within said controller one of: a message routing function
6 application, a load distribution function application, a temporary
7 identification number application, and an address information
8 embedding application.

1 6. The apparatus as set forth in Claim 1 wherein at least
2 one subscriber record is located within said processing element
3 unit.

1 7. The apparatus as set forth in Claim 6 wherein at least
2 one subscriber record is located within at least one processing
3 element within said processing element unit.

1 8. The apparatus as set forth in Claim 6 wherein at least
2 one application software program is located within said processing
3 element unit.

1 9. The apparatus as set forth in Claim 8 wherein at least
2 one application software program is located within at least one
3 processing element within said processing element unit.

1 10. The apparatus as set forth in Claim 6 wherein said mobile
2 switching station is capable of sending a workload message to said
3 at least one processing element where said subscriber record is
4 located.

1 11. The apparatus as set forth in Claim 10 wherein said
2 mobile switching center is capable of assigning a subscriber to a
3 processing element if said subscriber is new to said mobile
4 switching center.

1 12. For use in a mobile telecommunications network comprising
2 a mobile switching center, a plurality of subscribers, and a
3 processing element unit, wherein said mobile switching center is
4 capable of communicating with said plurality of subscribers and
5 with said processing element unit, a method for providing a
6 distributed processing element unit capable of accessing each
7 processing element within said processing element unit, said method
8 comprising the steps of:

9 assigning a temporary identification number to a subscriber
10 within a processing element unit controller within said mobile
11 switching center; and

12 embedding information within said temporary identification
13 number within said processing element unit controller within said
14 mobile switching center, wherein said information locates a
15 processing element within said processing element unit.

1 13. The method as set forth in Claim 12 wherein said
2 temporary identification number is one of: a Temporary Mobile
3 Station Identification number, and a packet based Temporary Mobile
4 Station Identification number.

1 14. The method as set forth in Claim 12 wherein said step of
2 embedding information within said temporary identification number
3 of said subscriber to locate said processing element within said
4 processing element unit comprises the step of:

5 adding an address pointer to said temporary identification
6 number.

1 15. The method as set forth in Claim 14 wherein said
2 temporary identification number is one of: a Temporary Mobile
3 Station Identification number, and a packet based Temporary Mobile
4 Station Identification number.

1 16. The method as set forth in Claim 12 further comprising
2 the steps of:

3 executing computer software instructions within a controller
4 within said mobile switching center to execute one of: a message
5 routing function application, a load distribution function
6 application, a temporary identification number application, and an
7 address information embedding application.

1 17. The method as set forth in Claim 12 further comprising
2 the step of locating at least one subscriber record within said
3 processing element unit.

1 18. The method as set forth in Claim 17 further comprising
2 the step of locating at least one subscriber record within at least
3 one processing element within said processing element unit.

1 19. The method as set forth in Claim 17 further comprising
2 the step of locating at least one application software program
3 within said processing element unit.

1 20. The method as set forth in Claim 19 further comprising
the step of locating at least one application software program
within at least one processing element within said processing
element unit.

1 21. The method as claimed in Claim 17 further comprising the
2 step of:

3 sending a workload message from said mobile switching center
4 to said at least one processing element where said subscriber
5 record is located.

1 22. The method as set forth in Claim 21 further comprising
2 the step of:

assigning a subscriber to a processing element if said subscriber is new to said mobile switching center.

1 23. For use in a mobile telecommunications network comprising
2 a mobile switching center, a plurality of subscribers, and a
3 visitor location register, wherein said mobile switching center is
4 capable of communicating with said plurality of subscribers and
5 with said visitor location register, an apparatus for providing a
6 distributed visitor location register capable of accessing each
7 visitor location register site within said visitor location
8 register, said apparatus comprising:

9 a visitor location register controller within said mobile
10 switching center, said visitor location register controller capable
11 of embedding information within a temporary identification number
12 of a subscriber, wherein said information locates a visitor
13 location register site within said visitor location register.

14 24. The apparatus as set forth in Claim 23 wherein said
15 temporary identification number is one of: a Temporary Mobile
16 Station Identification number, and a packet based Temporary Mobile
17 Station Identification number.

1 25. The apparatus as set forth in Claim 1 wherein said
2 visitor location register controller is capable of embedding
3 information within said temporary identification number of said
4 subscriber to locate said visitor location register site within
5 said visitor location register by adding an address pointer to said
6 temporary identification number.

1 26. The apparatus as set forth in Claim 25 wherein said
2 temporary identification number is one of: a Temporary Mobile
3 Station Identification number, and a packet based Temporary Mobile
4 Station Identification number.

1 27. The apparatus as set forth in Claim 23 wherein said
2 visitor location register controller comprises:

3 a controller within said mobile switching center; and
4 computer software instructions operable by said controller to
5 execute within said controller one of: a message routing function
6 application, a load distribution function application, a temporary
7 identification number application, and an address information
8 embedding application.

1 28. The apparatus as set forth in Claim 23 wherein at least
2 one subscriber record is located within said visitor location
3 register.

1 29. The apparatus as set forth in Claim 28 wherein at least
2 one subscriber record is located within at least one visitor
3 location register site within said visitor location register.

1 30. The apparatus as set forth in Claim 28 wherein at least
2 one application software program is located within said visitor
3 location register.

1 31. The apparatus as set forth in Claim 30 wherein at least
2 one application software program is located within at least one
3 visitor location register site within said visitor location
register.

1 32. The apparatus as set forth in Claim 28 wherein said
2 mobile switching station is capable of sending a workload message
3 to said at least one visitor location register site where said
4 subscriber record is located.

1 33. The apparatus as set forth in Claim 32 wherein said
2 mobile switching center is capable of assigning a subscriber to a
3 visitor location register site if said subscriber is new to said
4 mobile switching center.